BRAIN RESEARCH

VOL. 768 NOS. 1,2 **CONTENTS** **12 SEPTEMBER 1997**

Cited in Biological Abstracts (BIOSIS) – Chem. Abstracts – Index Medicus (MEDLINE) – Current Contents (Life Sci.) – Excerpta Medica (EMBASE) – Psychological Abstracts (PsycINFO) – Pascal et Francis (INIST-CNRS) – RIS (Reference Update) – Current Awareness in Biological Science (CABS)

Publisher's Announcement v

Guidelines for the submission of manuscripts vii

Research reports

Nestin expression in reactive astrocytes following focal cerebral ischemia in rats
N. Duggal, R. Schmidt-Kastner and A.M. Hakim (Canada) 1

F-Actin cytoskeleton and sucrose permeability of immortalised rat brain microvascular endothelial cell monolayers: effects of cyclic AMP and astrocytic factors
R.J. Rist, I.A. Romero, M.W.K. Chan, P.-O. Couraud, F. Roux and N.J. Abbott (UK, France) 10

Application of recombinant adenovirus for in vivo gene delivery to spinal cord
Y. Liu, B.T. Himes, J. Moul, W. Huang, S.Y. Chow, A. Tessler and I. Fischer (USA) 19

Sex differences in *N*-methyl-D-aspartate involvement in κ opioid and non-opioid predator-induced analgesia in mice
M. Kavaliers and E. Choleris (Canada, Italy) 30

Effects of the removal of extracellular Ca^{2+} on $[Ca^{2+}]_i$ responses to FCCP and acetate in carotid body glomus cells of adult rabbits
M. Sato (Japan) 37

Mobilization of arachidonate and docosahexaenoate by stimulation of the 5-HT_{2A} receptor in rat C6 glioma cells
M.C. Garcia and H.-Y. Kim (USA) 43

3-[2,4-Dimethoxybenzylidene]anabaseine (DMXB) selectively activates rat α7 receptors and improves memory-related behaviors in a mecamylamine-sensitive manner
E.M. Meyer, E.T. Tay, R.L. Papke, C. Meyers, G.-l. Huang and C.M. De Fiebre (USA) 49

Glutamate stimulates 2-deoxyglucose uptake in rat cerebellar granule cells
M. Minervini, A. Atlante, S. Gagliardi, M.T. Ciotti, E. Marra and P. Calissano (Italy) 57

Melatonin suppression of PC12 cell growth and death
J.A. Roth, R. Rabin and K. Agnello (USA) 63

Role of respiratory and non-respiratory neurones in the region of the NTS in the elaboration of the sneeze reflex in cat
F. Wallois, L. Bodineau, J.M. Macron, D. Marlot and B. Duron (France) 71

Reduction in the ratio of β-preprotachykinin to preproenkephalin messenger RNA expression in postmortem human putamen during aging and in patients with status lacunaris. Implications for the susceptibility to parkinsonism
H. Tohgi, K. Utsugisawa, M. Yoshimura, M. Yamagata, Y. Nagane and K. Saitoh (Japan) 86

A role for hydrolysis of inositol 1,4,5-trisphosphate in terminating the response to inositol 1,4,5-trisphosphate and to a flash of light in *Limulus* ventral photoreceptors
A.M. Vallet and A. Fein (USA) 91

Neurons of the rostral para-ambiguual field have activity correlated to the 10-Hz rhythm in sympathetic nerve discharge of urethane-anesthetized cat
C.W. Dempesy, D.E. Richardson, B. Kocsis, C.J. Fontana and J.-H. Song (USA, Hungary) 102

The effect of blockade of κ-opioid receptors in the medial preoptic area on the luteinizing hormone surge in the proestrous rat
M.J. Smith and R.V. Gallo (USA) 111

Melatonin protects primary cultures of rat cortical neurones from NMDA excitotoxicity and hypoxia/reoxygenation
C. Cazevieille, R. Safa and N.N. Osborne (UK) 120

Serotonin-containing fibers in the suprachiasmatic hypothalamus attenuate light-induced phase delays in mice
M.J. Bradbury, W.C. Dement and D.M. Edgar (USA) 125

Differential expression of Fos protein after transection of the rat infraorbital nerve in the trigeminal nucleus caudalis
R. Terayama, N. Nagamatsu, T. Ikeda, T. Nakamura, O.I.F. Rahman, S. Sakoda, R. Shiba and T. Nishimori (Japan) 135

Vasopressin in the forebrain of common marmosets (*Callithrix jacchus*): studies with in situ hybridization, immunocytochemistry and receptor autoradiography
Z. Wang, D. Toloczko, L.J. Young, K. Moody, J.D. Newman and T.R. Insel (USA) 147

'Chemical ischemia' in cultured retina cells: the role of excitatory amino acid receptors and of energy levels on cell death
I.L. Ferreira, C.B. Duarte and A.P. Carvalho (Portugal) 157

Sensory-evoked high-frequency (γ-band) oscillating potentials in somatosensory cortex of the unanesthetized rat
M.S. Jones and D.S. Barth (USA) 167

(contents continued on p. 368)

0006-8993(19970912)768:1/2;1-B

(contents continued)

Role of impaired cAMP and calcium-sensitive K^+ channel function in altered cerebral hemodynamics following brain injury
W.M. Armstead (USA) 177
Induction of immediate–early gene expression in preoptic and hypothalamic neurons by the glucocorticoid receptor agonist, dexamethasone
K.P. Briski, B.M. DiPasquale and E. Gillen (USA) 185
Enhancement of contextual fear-conditioning by putative (±)-α-amino-3-hydroxy-5-methylisoxazole-4-propionic acid (AMPA) receptor modulators and *N*-methyl-D-aspartate (NMDA) receptor antagonists in DBA/2J mice
Y. Lu and J.M. Wehner (USA) 197
Amino-terminus truncated apolipoprotein E is the major species in amyloid deposits in Alzheimer's disease-affected brains: a possible role for apolipoprotein E in Alzheimer's disease
Y. Aizawa, R. Fukatsu, Y. Takamaru, K. Tsuzuki, H. Chiba, K. Kobayashi, N. Fujii and N. Takahata (Japan) 208
Differential expression of kainate receptors in the basal ganglia of the developing and adult rat brain
U. Wüllner, D.G. Standaert, C.M. Testa, J.B. Penney and A.B. Young (USA) 215
Invertebrate proenkephalin: δ opioid binding sites in leech ganglia and immunocytes
M. Salzet and G.B. Stefano (France, USA) 224
Neonatal vs. adult unilateral hippocampal lesions: differential alterations in contralateral hippocampal theta rhythm
H. Van Praag, I.B. Black and U.V. Stäubli (USA) 233
Role of ventral hippocampus in acquisition, consolidation and retrieval of rat's passive avoidance response memory trace
C.G. Ambrogi Lorenzini, E. Baldi, C. Bucherelli, B. Sacchetti and G. Tassoni (Italy) 242
Impaired modulation of AMPA receptors by calcium-dependent processes in streptozotocin-induced diabetic rats
C. Chabot, G. Massicotte, M. Milot, F. Trudeau and J. Gagné (Canada) 249
Effects of amisulpride, an atypical antipsychotic which blocks preferentially presynaptic dopamine autoreceptors, on integrated functional cerebral activity in the rat
A. Cudennec, D. Fage, J. Bénavidès and B. Scatton (France) 257
Effects of vasopressin and involvement of receptor subtypes in the rat central amygdaloid nucleus in vitro
Y.-F. Lu, A. Moriwaki, K. Tomizawa, H. Onuma, X.-H. Cai and H. Matsui (Japan) 266
Differential effects of acute administration of clozapine or haloperidol on local cerebral glucose utilization in the rat
V. Colangelo, R. Di Grezia, F. Passarelli, M. Musicco, F.E. Pontieri and F. Orzi (Italy) 273
Integrin Mac-1 and β-amyloid in microglial release of nitric oxide
J.L. Goodwin, M.E. Kehrli Jr. and E. Uemura (USA) 279
Neonatal treatments with the serotonin uptake inhibitors clomipramine and zimelidine, but not the noradrenaline uptake inhibitor desipramine, disrupt sleep patterns in adult rats
M.G. Frank and H.C. Heller (USA) 287
Hydrogen cyanide generation by μ-opiate receptor activation: possible neuromodulatory role of endogenous cyanide
J.L. Borowitz, P.G. Gunasekar and G.E. Isom (USA) 294
Neurosteroid modulation of [^{3}H]flunitrazepam binding in the medulla: an autoradiographic study
K.M. Garrett, K.W. Barron, R.J. Briscoe and C.M. Heesch (USA) 301
Sensorimotor learning and retention during equilibrium tests in Purkinje cell degeneration mutant mice
N. Le Marec and R. Lalonde (Canada) 310
Melatonin rescues dopamine neurons from cell death in tissue culture models of oxidative stress
L. Iacovitti, N.D. Stull and K. Johnston (USA) 317

Short communications

Activation of locus coeruleus by prefrontal cortex is mediated by excitatory amino acid inputs
E. Jodo and G. Aston-Jones (USA) 327
The distribution of the NMDA R1 subunit in the rat hippocampus – an immunocytohistochemical study
K. Wędzony and A. Czyrak (Poland) 333
Extracellular glutamate increases in the lateral hypothalamus and decreases in the nucleus accumbens during feeding
P. Rada, S. Tucci, E. Murzi and L. Hernández (Venezuela) 338
Interleukin-1β does not increase synaptic inhibition in hippocampal CA3 pyramidal and dentate gyrus granule cells of the rat in vitro
M.L. Zeise, J. Espinoza, P. Morales and A. Nalli (Chile) 341
Methamphetamine-induced serotonin neurotoxicity is attenuated in p53-knockout mice
H. Hirata and J.L. Cadet (USA) 345
Coexistence of calcium-binding proteins in vagal and glossopharyngeal sensory neurons of the rat
H. Ichikawa and C.J. Helke (Japan, USA) 349
Alterations of AMPA-selected glutamate subtype immunoreactivity in the dentate gyrus after perforant pathway lesion
K. Mizukami, A. Mishizin, M.D. Ikonomovic, R. Sheffield and D.M. Armstrong (USA) 354
NMDA-induced response in pyramidal neurons of the rat medial prefrontal cortex slices consists of NMDA and non-NMDA components
V.L. Arvanov and R.Y. Wang (USA) 361

Author Index 365